

**REMARKS**

In summary, claims 1-19 are pending. Claims 1-19 are rejected under 35 U.S.C. §102. Claims 5 and 6-9 is rejected under 35 U.S.C. §103. Applicants respectfully traverse all rejections. Independent claims 1, 4, 10, 13, and 16 are amended. No new matter is added. Support for the amendments to 1, 4, 10, 13, and 16 can be found in Applicant's application, at paragraph [0042] for example.

**Claim Rejections - 35 U.S.C. § 102 In View Of Kamvar**

Claims 1, 4, and 13-16 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2005/0033742 in the name of Kamvar *et al.* (hereinafter referred to as "Kamvar").

Kamvar neither discloses nor suggests several claim limitations. For example, Kamvar neither discloses nor suggests "non-zero entries of ... vector ... v correspond at least to a favorites list associated with a user's web browser" as recited in amended independent claims 1, 4, 13, and 16.

Further, Applicant maintains the previously submitted arguments pertaining to the teaching of Kamvar. Specifically, it is again submitted that Kamvar neither discloses nor suggests "a page-grading engine" as recited in the claims. Kamvar nowhere mentions a page-grading engine. This argument was previously submitted and has not been addressed in the instant Office Action, other than to repeat the previous rejection. In the instant Office Action, paragraphs [0005], [0007], and [0008] are cited as teaching a page-grading engine. However, no explanation is provided as to which element of the cited paragraphs is being interpreted as a page-grading engine.

In view of the above arguments, remarks, and amendments, it is requested that the rejection, under 35 U.S.C. § 102, of claims 1, 4, and 13-16 be reconsidered and withdrawn.

**Claim Rejections - 35 U.S.C. § 102 In View Of Haveliwala**

Claims 1-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by an article titled “An Analytical Comparison of Approaches to Personalizing PageRank”, authored by Haveliwala *et al.* (hereinafter referred to as “Haveliwala”).

Haveliwala neither discloses nor suggests “non-zero entries of ... vector ...  $v$  correspond at least to a favorites list associated with a user’s web browser” as recited in amended independent claims 1, 4, 10, 13, and 16.

Haveliwala compares three approaches to personalizing an algorithm referred to as PageRank. (Abstract). Haveliwala nowhere mentions or suggests that non-zero entries of a vector  $v$  correspond at least to a favorites list associated with a user’s web browser.

Further, it is not clear how Haveliwala is being interpreted to teach “a database for storing connectivity information” as claimed. On page 9 of the instant Office Action, it is asserted that “Haveliwala teaches RageRank database comprises directed Web graph  $G$  which stores connectivity information about web pages.” However, Haveliwala expressly defines PageRank as an algorithm, not a database. “PageRank, the popular link-analysis algorithm ...” (Abstract). Thus, it is not clear which element in Haveliwala is being interpreted as the claimed database.

Additionally, it is not articulated in the instant Office Action how identified elements in Haveliwala supposedly equate to elements in the claims. The Office Action points to pages in Haveliwala but provides no explanation as to which elements in Haveliwala are allegedly equivalent to the features in the claims.

As known, the Office bears the burden to clearly articulate how a reference is being asserted against the claims. “The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and other wise reply completely at the earliest opportunity.” MPEP § 706. “In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference ... shows or describes inventions other

than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of reference, if not apparent, must be clearly explained and each rejected claim specified.” (emphasis added) 37 § CFR 1.104 (c)(2), MPEP 706.

According to MPEP 706.02(j), it is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. Furthermore, if an initially rejected application issues as a patent, the rationale behind an earlier rejection may be important in interpreting the scope of the patent claims. Since issued patents are presumed valid (35 U.S.C. 282) and constitute a property right (35 U.S.C. 261), the written record must be clear as to the basis for the grant. Since patent examiners cannot normally be compelled to testify in legal proceedings regarding their mental processes (see MPEP § 1701.01), it is important that the written record clearly explain the rationale for decisions made during prosecution of the application.

For example, it is not clear how Haveliwala is being interpreted to teach “a page-grading engine” as claimed. On page 9 of the instant Office Action, it is asserted that “Haveliwala teaches the ‘PageRank’ for ranking web pages, associated with low-rank approximation of matrix  $Q$ , denoted as  $Q$ ” However, no indication is provided as to which element in Haveliwala is being interpreted as a page-grading engine.

Regarding claim 2, it is not clear how Haveliwala is being interpreted to teaches “approximation matrix  $Q$ ’ is a rank- $k$  matrix whose representation comprises a singular value decomposition comprising matrices  $V_k$ ,  $S$  and  $U_k^T$  for a parameter  $k$ ” as recited in claim 2. On page 9 of the instant Office Action, it is merely stated that Haveliwala teaches the limitations of claim 2 on page 3 of Haveliwala. No indication is provided in the instant Office Action as to which element of Haveliwala is being interpreted as  $V_k$ . No indication is provided in the instant Office Action as to which element of Haveliwala is being interpreted as  $S$ . No indication is provided in the instant Office Action as to which element of Haveliwala is being interpreted as  $U_k^T$ . Page 3 of Haveliwala describes three approaches to approximating a matrix  $Q$  with a matrix  $\hat{Q}$ . Two of the approaches are found on page 3 of

Haveliwala and the third approach is found on page 4. Applicant finds no teaching of an “approximation matrix  $Q$ ’ is a rank- $k$  matrix whose representation comprises a singular value decomposition comprising matrices  $V_k$ ,  $S$  and  $U_k^T$  for a parameter  $k$ ” in the three approaches described in Haveliwala.

Similarly, the rejection of claims 3-19 are supported merely by reference to page numbers in Haveliwala without an explanation as to which elements in Haveliwala are being equated with claim limitations.

In view of the arguments provided above, and because Haveliwala neither discloses nor suggests “non-zero entries of ... vector ...  $v$  correspond at least to a favorites list associated with a user’s web browser”, it is requested that the rejection of claims 1-19 under 35 U.S.C. § 102 be reconsidered and withdrawn.

**Claim Rejections - 35 U.S.C. § 103**

Claims 5 and 6-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kamvar in view of various combinations of an article entitled “Fast Computation of Low Rank Matrix Approximations” authored by Dimitris Achlioptis and Frank McSherry (hereinafter referred to as “Achlioptis”) and U.S. Patent No. 6,285,999, issue to Page (hereinafter referred to as “Page”). Combining Achlioptis and/or Page with Kamvar does not overcome the deficiencies of Kamvar described above. Specifically, Kamvar, Achlioptis, and Page, whether considered separately or in any combination, neither disclose nor suggest “non-zero entries of ... vector ...  $v$  correspond at least to a favorites list associated with a user’s web browser”. Accordingly, it is requested that the rejection, under 35 U.S.C. § 103, of claims 5 and 6-9 be reconsidered and withdrawn.

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**PATENT**

### **CONCLUSION**

It is requested that the forgoing arguments, remarks, and amendments be entered, and in view thereof, it is respectfully submitted that this application is in condition for allowance. Reconsideration of this application and an early Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow this application for any reason, the Examiner is encouraged.

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